Texas Risk Factor Report

Behavioral Risk Factor Surveillance System

Texas Department of Health | March 1997 | Volume 3 No. 2

Tobacco Use 1995 Survey Data

Highlights of this Issue

- ***Overall, smoking prevalence in Texas has remained unchanged since 1987.*** There was, however, a significant increase in smoking among 18 to 24 year olds.
- ***Educational attainment was a strong predictor of cigarette smoking.*** Texans with less than a high school education had a smoking prevalence of 29% compared with only 12% of college graduates.
- ***Current smoking was strongly associated with other risk factors, and diminished access to care.*** Acute and chronic drinking, drinking and driving, lack of health care coverage, and inability to see a health care provider due to cost were all significantly higher in smokers than in nonsmokers.
- ***Smokers perceive themselves to be "less healthy" than nonsmokers.*** The number of days lost to poor mental or physical health was significantly greater for smokers than for nonsmokers.

Introduction: Tobacco use is the single largest cause of preventable death and disease in Texas, and accounted for an estimated 26,427 Texas deaths in 1995.[1] Each year tobacco kills more Texans than AIDS, crack, heroin, cocaine, alcohol, car accidents, suicides, fire, and murder - combined. Tobacco use is associated with increased mortality from heart disease, stroke, cancer (including cancer of the lung, lip, oral cavity, pharynx, esophagus, pancreas, larynx, cervix uteri, urinary bladder, and kidney), chronic lung disease, low birth weight, respiratory distress syndrome, and sudden infant death syndrome (SIDS).

Data presented in this report are from the Behavioral Risk Factor Surveillance System (BRFSS), a monthly telephone survey sponsored by the Texas Department of Health, Bureau of Chronic Disease Prevention and Control. Each month, randomly selected Texans (18 years of age and older) are asked questions about their health habits. A total of eight questions related to tobacco were asked in 1995. The data were analyzed to examine various factors associated with smoking status among Texans, and to look at trends in smoking prevalence.

Methods: The 1995 BRFSS used a truncated list-assisted sample design for random digit dialing. Telephone interviewing was conducted by the University of Texas, Office of Survey Research using computer assisted telephone interviewing technology. Statistical analyses were performed using SUDAAN[2] and Epi-Info.[3] Data were weighted to reflect the age, sex, and race distribution in Texas, as well as the respondent's probability of being drawn into the sample. Weighting ensures that each respondent effectively represents a specific number of Texas residents within his/her specific demographic group, which in turn allows the results of this survey to be generalized to the population of Texas.

Sex, race/ethnicity, education, household income, age, and other selected variables were controlled for through the use of multiple logistic regression. For simplicity, this discussion focuses on proportions but indicates odds ratios parenthetically (OR) when necessary. Trends were analyzed with the chi-square statistic.

In 1995, the BRFSS included the questions "Have you smoked at least 100 cigarettes in your entire

life?"; "Do you now smoke cigarettes everyday, some days, or not at all?"; "On the average, about how many cigarettes a day do you now smoke?"; "On the average, when you smoked during the past 30 days, about how many cigarettes did you smoke a day?"; "During the past 12 months have you quit smoking for one day or longer?"; and "About how long has it been since you last smoked cigarettes regularly, that is daily?". A "current smoker" was defined as someone who had ever smoked 100 cigarettes and now smokes every day or some days. A "former smoker" was defined as someone who had ever smoked 100 cigarettes and no longer smokes. A nonsmoker was someone who had never smoked 100 cigarettes.

Each respondent was asked several questions to assess self-perceived physical and mental health. Questions included, "Would you say that your health in general is: Excellent, Very Good, Good, Fair, or Poor?," "...for how many days during the past 30 days was your physical health not good?," "...for how many days during the past 30 days was your mental health not good?" (includes stress, depression, and problems with emotions), and "During the past 30 days, for how many days did poor physical or mental health keep you from doing your usual activities...."

Access to health care was assessed for each respondent. Comparisons were made between smokers and nonsmokers using the following indicators of access to care: Time since last routine checkup, health insurance coverage, and inability to see a health provider due to cost.

The BRFSS asks several questions related to the respondent's use of alcohol. Acute alcohol risk is defined as greater than 5 drinks on a single occasion during the past 30 days. Chronic alcohol risk is defined as greater than 60 drinks during the past 30 days.

Drinking and driving and safety belt usage were used to assess risky behavior. Respondents who reported safety belt usage other than "Always," were considered to be at risk. Drinking and driving was determined by any answer greater than "none" to the following: "During the past month, how many times have you driven when you've had perhaps too much to drink?"

Results:

Trends: The Texas BRFSS has been collecting data since 1987, and has gathered smoking information in each survey year. Smoking prevalence in 1987 was 23.0%. Overall smoking prevalence has remained essentially unchanged with a prevalence of 23.7% noted in 1995 ($p = 0.93$).

By age group, 18-24 year olds showed a smoking prevalence increase of 7.9% since 1987 from 15.0% in 1987 to 22.9% in 1995 ($p<.05$, Figure 1*). Further breakdown reveals that the 18-24 year old males made the greatest contribution to the increasing rates, with a 14.4% increase in current smoking from 1987 through 1994 ($p<.05$, Figure 2*). This upward trend in the younger age groups was offset by an apparent decrease in the proportions of older and female respondents who reported current smoking.

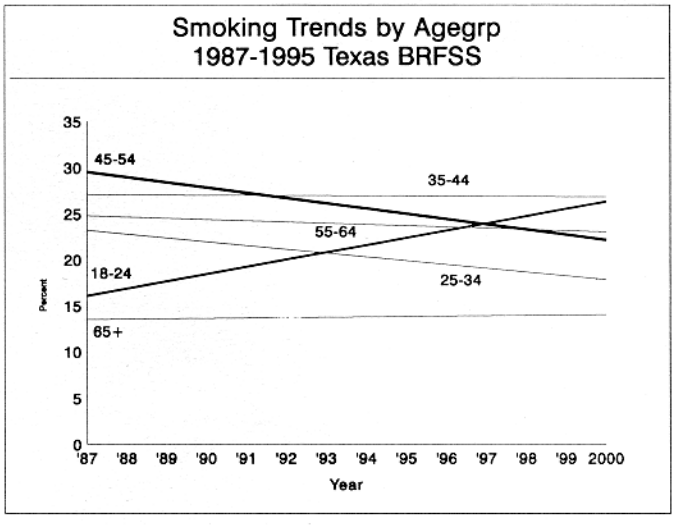

Figure 1

*** Trend lines from ordinary least squares (OLS) regression.**

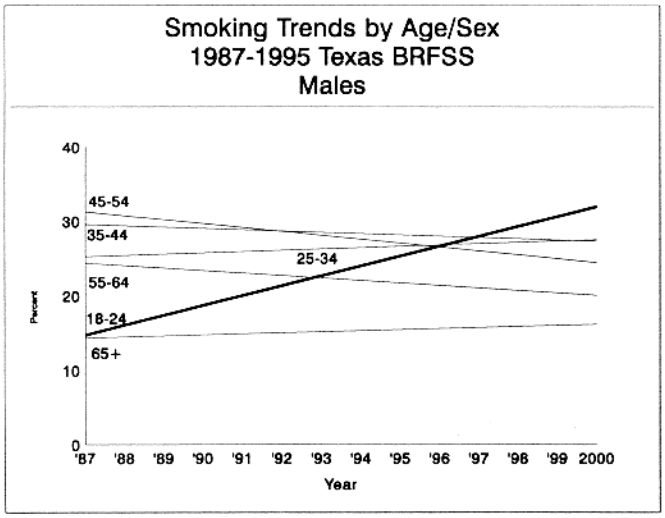

Figure 2

*** Trend lines from ordinary least squares (OLS) regression .**

Age: The 35-44 year old age group had the highest percentage of smokers (30%). Smoking prevalence declined on either side of this value, with 23% of 18-24 year olds, and 17.0% of 65+ year olds reporting current smoking ($p<.05$, Figure 3).

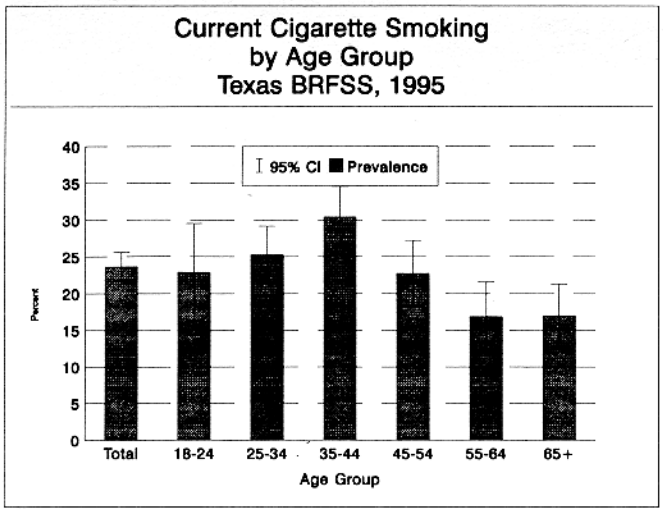

Figure 3

Race and Ethnicity: Smoking prevalence for Hispanics was 19%, 27% for African Americans, and 25% for whites. These differences did not reach statistical significance ($p>.05$), perhaps due to the relatively small numbers in each racial/ethnic subgroup. However, when evaluated by sex, female Hispanics had a significantly lower prevelance (10.5%) than those of white females (22.4%), African American females (25.4%), and all females (20.3%) ($p<.05$).

Sex: Males were significantly more likely to smoke than were females, with 27.1% of males classified as "current smokers," versus 20.4% of women ($p<.05$, Figure 4).

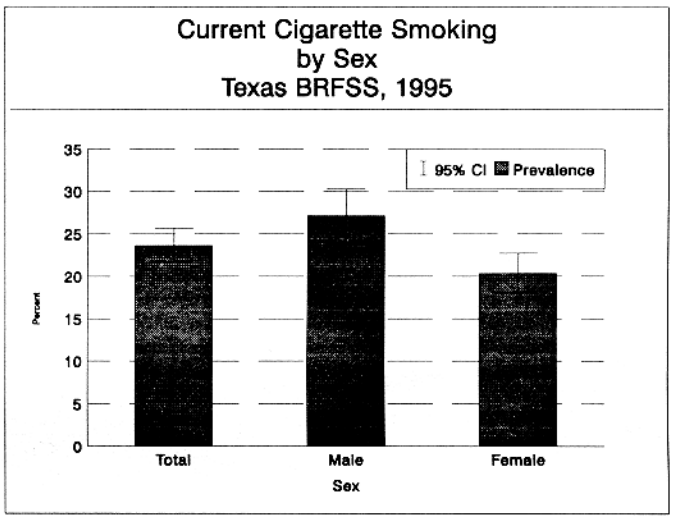

Figure 4

Educational Attainment: Respondents with less than a high school education were significantly more likely to be smokers than were those who had completed college. Twenty-nine percent of those who had not finished high school reported current smoking, compared with only 12.7% of college grads ($p < .05$, Figure 5).

Other Variables: Income, employment status, and rural vs. urban residence showed no significant association with smoking status among the survey respondents. This is perhaps due to limitations of the sample size, expecially in the rural category.

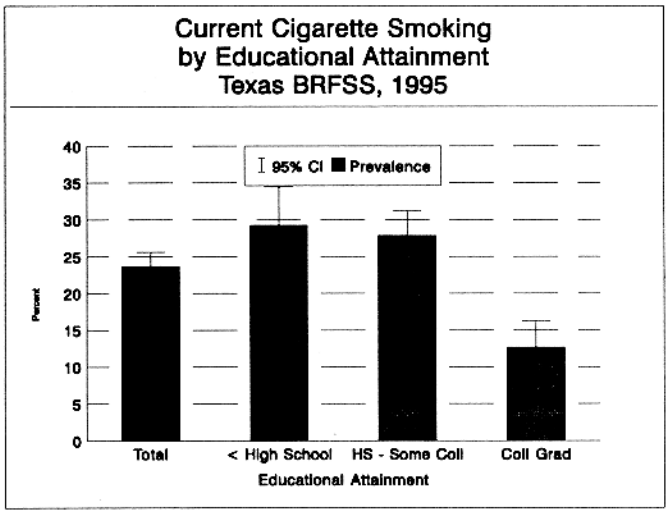

Figure 5

Health Behaviors and Smoking:

Self Perceived Health Status: Twenty-four percent of nonsmokers reported their general health as "Excellent," compared with only 16.9% of smokers ($p<.01$). The state-wide average was 22.9%.

Mean number of days that physical health was not good was not significantly different for smokers than for nonsmokers (10.9, vs. 9.5 respectively, $p>.05$). The mean number of days that mental health was not good, however, was significantly higher for smokers than for nonsmokers with smokers reporting an average of 12.0 days of poor mental health compared with an average of 8.0 days for nonsmokers ($p<.05$). Fewer smokers than nonsmokers reported zero days of poor mental health in the past 30 days (53.6% vs. 65.9% respectively, $p<.05$).

Access to Care: A comparison was made between smokers and nonsmokers of the prevalence of a "routine checkup" within the past year. Sixty-three percent of smokers reported a recent routine visit compared with 72% of nonsmokers ($p<.01$).

Twenty-five percent of smokers reported that they were unable to see a doctor in the past year when they needed to due to cost. This compares with only 10.2% of nonsmokers ($p<.05$). This issue might be correlated with the fact that more than 25.5% smokers report being without health care coverage compared to 14.5% of nonsmokers ($p<.05$).

Smoking and Drinking: Nearly half (45%) of smokers were found to be at risk for acute alcohol usage (>5 drinks on an occasion in the past 30 days). This compares with only 24.8% of nonsmokers ($p<.001$). Chronic alcohol risk (>60 drinks in the past 30 days) showed similar results with 10.5% of smokers at risk, versus 1.8% of nonsmokers ($p<.001$).

Risky Behavior: Drinking and driving risk was reported in 12.6% of smokers while only 5.2% of nonsmokers reported this risky behavior ($p<.001$). Seat belt usage differed significantly between smokers and nonsmokers. Seventy-one percent of smokers describe their seat belt usage as "Always," compared with 79.5% of nonsmokers ($p<.05$).

Conclusions:

Overall, smoking prevalence in Texas has remained essentially unchanged since 1987. However, there appears to be a shift in smoking prevalence from the older age groups to the 18-24 year old age group.

Prevalence of current smoking peaks among the 35 to 44 year old age group with 30% of this group classified as "current smokers."

Males reported current cigarette smoking more frequently than did females. These prevalences have remained stable since 1987.

Education was a strong predictor of smoking status, with lower educated persons having higher smoking rates. This pattern is consistent with other studies in the literature. Our study did not show significant differences in smoking status related to household income or employment status, however, this may be due to limitations of the sample size.

Smokers perceive themselves to be "less healthy" than nonsmokers, especially when asked about mental health. The number of days lost to poor mental or physical health was significantly greater for smokers than for nonsmokers, supporting the fact that there is substantial economic and productivity cost to this addiction.

Along with the perception of diminished health by smokers, came the seemingly paradoxical finding that this same group sees its health professionals less frequently, is less insured, and is unable to see their doctor due to cost That the group at highest risk is receiving the health messages least frequently is a matter of public health concern.

Smoking and drinking alcohol have long been known to be strongly associated, and Texas smokers are no exception. It has been recently found that drinkers have a more difficult time quitting than non-drinkers.[4] There is general consensus among the scientific community that nicotine is a powerfully addicting drug.

Smokers tend to not limit their risk taking to smoking. They engaged in risky behavior, i.e., not using safety belts while driving, or driving while intoxicated, far more often than did their nonsmoking peers.

Recommendations:

Public awareness and education efforts should be increased with emphasis on changing social norms to prevent the initiation of smoking among young people and to reduce the numbers of adult Texans who smoke. These efforts should include clean indoor air policies/ordinances that restrict smoking in work sites and public places; media campaigns that "de-glamorize" smoking; and additional community cessation resources that address the needs of both youth and adults who desire to quit smoking.

Increased efforts should be made to get those who smoke into the local health care system. Prevention and cessation messages should be addressed at each encounter with a health care professional. Programs such as *Put Prevention into Practice* can facilitate the tracking and follow-up of smokers, and assure that health risk appraisals are completed on an annual basis.

Acknowledgment

The authors gratefully acknowledge the invaluable expertise and thoughtful review of this document by Sharon Kohout, Director, Office of Smoking and Health, Bureau of Chronic Disease Prevention and Control. Thanks also to Mr. Ed Rivera, Office of Smoking and Health for his insightful contributions to this work.

Table 1. Current Smoking by selected variables, 1987-1995

	1987	1988	1989	1990	1991	1992	1993	1994	1995
N (sample)	1181	1173	1490	1497	1499	2495	2484	1498	1703
Sex									
Male	23.0	25.8	23.6	23.8	23.4	25.5	23.7	23.0	27.1
Female	23.1	21.7	20.1	22.1	20.2	18.8	21.4	19.7	20.4
Race/Ethnicity									
White	23.7	26.7	24.4	24.0	22.3	23.7	26.3	22.8	24.5
Afr. Amer.	33.0	22.6	20.3	27.4	20.2	20.7	25.9	20.8	27.2
Hispanic	18.9	16.1	13.6	17.6	20.6	16.0	14.6	15.0	19.6
Other	19.0	2.7	28.8	24.4	16.2	18.7	9.5	14.8	19.8
Age Grouped									
18-24	15.0	21.8	13.8	17.7	20.0	18.2	22.9	20.4	22.9
25-34	25.3	23.8	24.0	25.6	23.7	24.2	25.9	20.2	25.2
35-44	28.1	27.9	29.9	23.7	24.5	25.8	27.1	25.5	30.6
45-54	32.0	31.1	22.1	27.6	26.6	27.7	26.0	29.0	22.8
55-64	18.3	22.5	24.7	25.2	21.3	23.5	24.0	17.5	16.9
65 +	13.2	12.9	12.7	16.2	15.4	11.2	13.8	13.8	17.0
Total	23.0	23.7	21.8	22.9	21.8	22.0	23.8	21.3	23.7

Did You Know...?

In an announcement printed in the 6/28/96 issue of Mortality and Morbidity Weekly Report (MMWR), The Council of State and Territorial Epidemiologists added smoking prevalence to the list of conditions designated as reportable by states to Centers for Disease Control and Prevention. This marks the first time a behavior, rather than a disease or illness, has been considered nationally reportable. The Behavioral Risk Factor Surveillance System was recommended as the primary data source for this reportable condition.

Office of Smoking and Health Report: Cigars, A Dangerous New Fad

The Office of Smoking and Health (OSH), Texas Department of Health, collaborates with various federal, state, and public organizations to be able to provide the most current information on tobacco control issues. OSH provides technical assistance to organizations, schools law enforcement agencies, and health professionals to increase public awareness and reduce tobacco sales to minors, as well as being the clearinghouse of information in tobacco use prevention issues for the state of Texas.

Cigar smoking in this country is becoming more than just a fad. In 1994, two-billion cigars were sold to ten-million cigar smokers. The popularity of cigars is due to a number of reasons; clever advertising in *Cigar Aficionado* magazine, invitation-only smoker nights, cigar of the month clubs, and celebrities glamorizing them in movies, television shows, and magazine ads. All of this has led to a lack of understanding about the dangers of cigar smoking and the myth that they are not addictive because smokers don't inhale.

According to the National Institute in Drug Abuse, a large cigar carries the nicotine kick of about four or five cigarettes, and even a few cigars per week or month might produce nicotine cravings. A cigar is classified as large when it requires more than three pounds of tobacco to make 1,000 of them. The US Centers for Disease Control and Prevention's Office on Smoking and Health, also reports research showing that carcinogens, the substances that can cause cancer, are found at similar levels in the smoke from cigarettes, cigars, and pipes.

Other information on the dangers of cigars as reported by the American Cancer Society includes:

* The carcinogens found in cigarettes are also found in cigars (US DHEW, 1979).
* All tobacco users are 5 - 10 times more likely to get cancer of the mouth or throat than nonsmokers (*Washington Post,* 1/10/95, p. 7).
* Cancer death rates among men who smoke cigars are 34% higher than among nonsmokers.
* Cigar smokers have 4-10 times the risk of dying from laryngeal, oral, and esophageal cancer as nonsmokers.
* Cigar smokers have a three times higher rate of lung cancer than nonsmokers.
* Cigar smokers are more likely than nonsmokers to suffer from persistent coughs, phlegm, and also face an increased risk of peptic ulcers (*Amer Jour Pub Health*, 11/87, 1412-16).
* Concentrations of tar and nicotine are much higher in cigars than in cigarettes (*Prev Med*, Jan, 1988, 17 (1): 116-128).
* Exposure to secondhand cigar smoke carries the same risks as exposure to secondhand cigarette smoke (*Washington Post*, 1/10/95, p. 7).
* Tobacco users cost American taxpayers $68 billion per year in medical expenses and lost productivity (American Cancer Society, *Facts and Figures*, 1995, 22).

For more information on tobacco use and tobacco control issues, call the Office of Smoking and Health, Texas Department of Health, at (512) 458-7402 or toll free at (800) 345-8647.

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4. Breslau, N, Peterson, E, Schultz, L, Andreski, P, and Chilcoat, H. *Are Smokers with Alcohol Disorders Less Likely to Quit?* American Journal of Public Health, Vol. 86, No. 7; 1996.

For additional information regarding this report contact:

Texas Department of Health
Bureau of Chronic Disease
Prevention and Control
1100 West 49th St.
Austin, TX 78756
(512) 458-7200

Prepared by:
Kenneth W. Condon, Epidemiologist
Behavioral Risk Factor Surveillance System

Roger Diamond, MPH, Program Manager
Behavioral Risk Factor Surveillance System

Philip P. Huang, MD, MPH, Chief
Bureau of Chronic Disease Prevention and Control

TDH
TEXAS DEPARTMENT OF HEALTH

Texas Department of Health
Bureau of Chronic Disease Prevention & Control
1100 West 49th Street
Austin, Texas 78756

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